

REMARKS

This Third Preliminary Amendment is to formally amend a sentence that was referred to in the Second Preliminary Amendment, which contained the following paragraph:

"The typographical errors include the term "super-sub" on page 6, line 28 of the specification, which has been replaced with the correct term "sub-stoichiometric." There are only two meaningful terms, super-stoichiometric or sub-stoichiometric. In addition, page 8, line 19, has been corrected so that the definition of synthesis gas is within the parenthesis and not separated by commas. Finally, the phrase "higher hydrogen concentration" more correctly should read "higher syngas production" on page 12, line 17."

In a recent review of the Second Preliminary Amendment, it was realized that the phrase "higher hydrogen concentration" on page 12, line 17 had not been formally amended, which has now been accomplished by this Third Preliminary Amendment. The correction does not contain any new matter and is supported throughout the specification. Note, for example, the sentence on page 13, lines 7-10 states:

"As shown in Fig. 7-10, this provides the chemistry at thermodynamic equilibrium that achieves a higher hydrogen-rich syngas that remains high and steady in hydrogen over a broad high temperature range up to and beyond 1300°C without catalysts."

It is well understood by one skilled art to which this application is directed that the term "higher hydrogen-rich syngas" in the foregoing sentence means "higher syngas production."

In addition, the paragraph on page 12, starting at line 30 states:

"A generalized chemical reaction can be written for any carbonaceous feedstock, as expressed by the generalized empirical formula $C_aH_bO_c$:



The above equation (4) clearly shows that as CO_2 is increased (i.e. quantity "D" moles of this equation) more moles are produced of the CO component of syngas that has a higher molecular weight than the H_2 component of syngas. Consequently, equation (4) shows that the mass of syngas production is increased, even though the H_2/CO ratio is decreased with increasing CO_2 .

If there are any questions with this amendment, the Examiner is invited to telephone the undersigned at (415) 984-8200.

Respectfully submitted,



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